COLSF
Colbert 7.3 V1

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July 27, 1989

Mr. Neil Thompson, Project Manager
EPA Region X
HW-113
1200 6th Avenue
Seattle, Washington 98101

Dear Mr. Thompson:

The Hazardous Waste Investigations and Cleanup Program, Department of Ecology, has completed its review of the Draft Quality Assurance Project Plan (QAPP) for Colbert Landfill Remedial Design/Remedial Action. The following are our comments:

General Comment:

Based on our review, the QAPP is well written and together with the appendices, appears to be reasonably complete. However, we feel the Data Quality Objectives (DQO's) should be more specific in detailing the project. This, combined with the sampling objective, should leave the reader with an understanding of the reason for sampling the given constituents and the level of analysis required. It is this portion of the QAPP that tends to justify the money spent for analysis and maximize those dollars.

Specific Comments:

Page QA-1-3 Line 13 add: .... Reauthorization Act, 1986) and the Washington State Hazardous Waste Cleanup Act, codified as chapter 70.105B RCW.

Page QA-9-4 Section 9.2 add: A limited number of samples may be split with EPA and/or Ecology which will provide interlab comparison when collected.

Page QA-10-3 add: The Audit Reports and associated Corrective Action Reports should be submitted to Ecology and EPA once the audit is closed.

Page QA-11-1 End of paragraph 1 correct: ... date ~~the~~ and initial of individual...

In Appendix QA-A Section 3, the list of analyses does not include the major ions commonly found in ground water. This comment has already been relayed to Brain Butler of Landau Associates. Brain agreed to include bicarbonate, carbonate, cadmium, calcium, chloride, iron, magnesium, manganese, nitrate, potassium, silica, sodium and sulfate in the list of ions for some wells. This ion sampling will be conducted in enough wells in the various aquifers to characterize the ground water quality in each aquifer.

In the same section, while discussing the list of parameters for evaluating the pilot treatment system for groundwater treatment, toxic metals such as lead and zinc have not been included. These metals, if present, will affect the effluent discharge quality. Therefore, it may be worthwhile to look into these parameters.

Another important parameter that should be looked into is the Alkalinity to determine the cause of hardness.

Page FS-3-5 Last column, third one down: If the study extends beyond four weeks, and the weekly data does not indicate definite trends, then we recommend continuing weekly sampling. The quarterly sampling should also be reduced to monthly sampling in case the study extends more than four weeks.

Page FS-4-2 end of last paragraph, clarify/add: ....as soon as the water level has recovered enough to allow collection of the necessary samples, which may require sampling on a subsequent day.

Page FS-4-6 Fourth bullet, change: If any air bubbles appear, the bottles will be opened, drained, and refilled ~~and/more/sample/added~~. This process will be repeated until all air bubbles are eliminated. (We think it would be better to drain the bottles and refill them rather than attempting to add more sample. Adding more sample allows more air contact and possible loss/volatilization of the VOC's.)

If you have any questions on these comments please contact me at 206-438-3043. I would appreciate if you send me a copy of the final Ecology/EPA comment letter before mailing it to Spokane County.

Sincerely,

Ravi Krishnaiah for

Mike Blum, Site Manager
Landfill Cleanup Section
Hazardous Waste Investigations and
Cleanup Program

cc: Mike Schlender, EPA
Russ Darr, Ecology
Ravi Krishnaiah, Ecology